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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/632,196	08/02/2000	Gerhard A. Schneider	4396	9110

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EXAMINER

DINH, DUC Q

ART UNIT PAPER NUMBER

2674

DATE MAILED: 09/05/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/632,196

Applicant(s)

SCHNEIDER, GERHARD A.

Examiner

DUC Q DINH

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-53 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4,7. 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 31, 34-36 and 43 recites the limitation "second presentation element" in the claims. There is insufficient antecedent basis for this limitation in the claim.

Claim 45, recited "the optical mouse" in the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Objections

3. Claim 29 objected to because of the following informalities: line 2 "lest" should read "least".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C.

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122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1, 16-17, 20-21, 26-28, 38-48, 49-53 are rejected under 35 U.S.C. 102(e) as being anticipated by Daniels (U. P. Patent No. 6,417,840 B1).

In reference to claim 1 Daniels discloses an integrated cordless mouse and laser pointer which selectively communicates with a computer and which is also capable of transmitting a beam of laser light. As shown in Fig. 1-5 there is illustrated a wireless mouse 10 capable of transmitting, for example, infrared control signals to a computer and of transmitting a focused beam of light for presentation highlighting. The mouse 10 has conventional operating buttons 14 and 16 on an upper surface 12. The mouse 10 further has a mouse ball 26 in an undersurface 18, a front surface 20, and a plurality of sides 22. The left and right operating buttons 14, 16 are separately operable, and each button 14, 16 sends a specific infrared (IR) wireless signal or signals to a computer or other like device through a port 24 located on the front surface 20 (col. 2, lines 30-42).

In reference to claim 16-17, refer to the rejection as applied to claim 1.

In reference to claims 20-21, refer to the rejection as applied to claim. In addition, Daniels discloses that the signals transmitted by a cordless mouse 10 to the computer are of necessity signals which may be sent without a physical transmission line. Preferably, the mouse 10 sends infrared signals generated by the signal generator 41 in response to movements sensed by the mouse ball 26 and in response to operation of switches controlled by the operating buttons 14, 16. Alternatively, provided a suitable frequency band is used which does not disrupt

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operation of the computer, the signals from the signal generator 41 may be transmitted as radio frequency signals (col. 3, line 35-45).

In reference to claim 26-28, refer to the rejection Daniels discloses in FIGS. 3, 4, a switch 30 is provided on a side 22 of the cordless mouse 10. While the switch 30 is shown to be on the side 22 to the left of the front surface 20, it is to be understood that the switch may be located anywhere on the mouse 10. The switch 30 functions to selectively allow transmission of the computer control signals produced by either of the buttons 14, 16 and/or the mouse ball 26 or transmission of the beam of light from the light generating apparatus 27 through the port 24. Specifically, with the switch 30 in its normal, under pressed state, the mouse 10 functions as a conventional cordless computer mouse and the signal generator 41 is enabled to transmit signals from the mouse ball 26 and the operating buttons 14, 16 to the computer. Upon depression of the switch 30, the signal generator 41 is disabled. Instead, the laser generator 42 is enabled and a beam of light from the laser generator 42, is transmitted through the port 24. FIG. 11 shows the electrical connection of the switch 30 to enable (EN) inputs of the signal generator 41 and the laser generator 42. As shown, the switch 30 selectively applies an enable signal to one or the other generators 41, 42 in accordance with whether it is depressed or not. Alternatively, as illustrated in FIGS. 10A and 10B, a switch 30' may be a toggle switch. Namely, the switch 30' may be pushed and then mechanically held into an A position, which enables the signal generator 41 or into a B position which enables the laser generator 42 (col. 3, line 67-col4, line 19).

In reference to claim 38, refer to the rejection as applied to claim 1.

In reference to claim 39, refer to the rejection as applied to claim 20-21.

In reference to claims 40-42, Daniels discloses that the communication device of the invention may also be constructed as a trackball apparatus 100, as illustrated in FIGS. 6-7. The trackball apparatus 100 includes a trackball 102 protruding through an upper surface 104 of a housing. Further, trackball apparatus 100 includes a plurality of sides 106 and a front surface 108. A port 110 is located in the surface 108. A switch 112 is positioned on one of the sides 106. As with the switches 30, 30' on the mouse 10, the switch 112 may be placed anywhere on the trackball apparatus 100. The switch 112 functions similarly to switch 30. The trackball apparatus 100 includes operating switches 114, 116 similar in function to the operating buttons 14, 16 previously described. (13) Shown in FIGS. 8, 9 is a touch pad apparatus 200 including a touch pad 202 provided on an upper surface 204. Further, the touch pad apparatus 200 includes a plurality of sides 206 and front surface 208 in which is located a port 210. A switch 212 is provided anywhere on the touch pad apparatus 200 and functions similarly to the previously described switches 30, 30', 112. The touch pad apparatus 200 includes operating switches 214, 216 similar in function to the operating buttons 14, 16 previously described (col.4, lines 26-48).

In reference to claims 43-46 and 48, refer to the above rejections.

Claims 49-53 are method claims associated with the above apparatus claims; therefore, are rejected as the same set forth as applied to the above claims.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2-5, 7 and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daniels.

In reference to claims 2-5, 7, 9-10, Daniels discloses everything except for the location and/or arrangement of the control mechanism a light beam on the device housing.

Absent a showing of critically and/or unexpected result, it would be obvious to one of ordinary skill in the art to relocate the arrangement of the control mechanism a light beam on the device housing as desired as was judicially recognized with *IN RE JAPIKEE* USPQ 70 (CCPA 1950), which recognizes that the relocation of well known element is normally not desired toward patentable subject matter.

8. Claims 6, 8, are rejected under 35 U.S.C. 103(a) as being unpatentable over Daniels in view of Liu (U. P. Patent No. 6,133,907).

In reference to claims 6, 8, Daniels discloses everything except a lens of the coherent light source. Liu discloses a pointing device employing laser beam.

It would have been obvious for one of ordinary skill in the art to provide the lens taught by Liu in the device of Daniels for protecting the laser light source.

9. Claims 11-15, 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daniels in view of Stork et al (U. P. Patent No. 6,181,329 B1), hereinafter Stork.

In reference to claims 11-15, 18-19 Daniel fails to disclose a writing mechanism for the device and gyroscope system for the mechanism control device. Stork discloses an apparatus for tracking a hand held a writing instrument comprises three gyroscopes 126-128.

It would have been obvious for one of ordinary skill in the art for providing the Stork's writing instrument to the device discloses by Daniels for providing a convenient writing means for users.

It would have been also obvious for one of ordinary skill in the art at to provide the gyroscope system taught by Stork in the device of Daniel for sensing the position information for the system.

Daniels discloses everything except for the location and/or arrangement of the control mechanism a light beam on the device housing.

Absent a showing of critically and/or unexpected result, it would be obvious to one of ordinary skill in the art to relocate the arrangement of the control mechanism an light beam on the device housing as desired as was judicially recognized with *IN RE JAPIKEE* USPQ 70 (CCPA 1950), which recognizes that the relocation of well known element is normally not desired toward patentable subject matter.

10. Claims 22-25, 31-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daniels in view of Hu (U. P. Patent No. 5,952,997).

In reference to claims 22-25 and 31-37, Daniels discloses everything except the electronic control comprises an optical pointing device. Hu discloses an optical mouse as claimed.

It would have been obvious for one of ordinary skill in the art to substitute the optical mouse taught by Hu for the conventional mouse of Daniels to provide another optional input device for users.

In reference to claim 31, refer to the rejection of claim 1. In addition, Daniels discloses in FIGS. 5, 12-13, a transmission generating device 27 is shown in communication with the port 24. The transmission generating device 27 is formed of a transmission path which communicates the port 24 with the signal generator 41 and with the laser generator 42, respectively. The transmission path may be formed of a light guide having branches 45, 46 as shown in FIG. 12. Alternatively, as shown in FIG. 13, a transmission generating device 327 may include the signal generator 41 and the laser generator 42 mounted adjacent each other behind the port 24(col. 3, lines 54-65).

In reference to claims 32-33, refer to the rejection as applied to claim 27-28.

In reference to claim 34-35, refer to the rejection as applied to claim 1. In addition, Daniels discloses switch 30 in Fig. 5 satisfying the claimed limitations.

In reference to claim 36-37, Daniels discloses the mode of operation of the mouse 10 as an example of the use of the communication device. During business or other types of meetings in which computer images are displayed on the wall or on a screen, it is necessary to be able to control the computer, for example, to switch computer images and to have the ability to point to one or more aspects within each separate computer image. The mouse 10 provides a single operator the opportunity to control a computer using the conventional mouse signals indicating mouse 10 movement and operation of the buttons 14, 16 and thereby control the computer. In addition, the mouse 10 provides the added functionality of enabling a user to point to the computer images with a beam of light. Specifically, an operator may operate the mouse 10 for computer control while standing at a podium, dais, or other location. By aligning the port 24 with a light receiver on the computer, an operator may move the mouse 10 on a surface and/or

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press one of the operating buttons 14, 16 in order to, for example, switch to the next displayed image. Further, the operator may depress the switch 30 and point the port 24 towards a certain aspect of the computer image being displayed, thereby highlighting that aspect with a beam of light. Similarly, a single operator may use the trackball apparatus 100 or the touch pad apparatus 200 in much the same way these devices are conventionally used to single handedly change computer images. A user can also use the trackball apparatus 100 or the touch pad apparatus 200 to highlight and point out certain aspects of the computer images with a focused light beam upon operation of the switch 30 (col. 4, line 48-col. 5, line 11).

11. Claims 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daniels and further in view of Shimada et al (U. P. Patent No. 6,014,132).

In reference to claims 29-30, Daniels the power management circuit 45 in Fig. 11. However, Daniels fails to disclose the unit configured to the off both the electronic control and the light in a predetermined conditions. Shimada discloses an electronic device having a power saving unit for the electronic device as shown in Fig. 3.

It would have been obvious for one of ordinary skill in the art to provide the power saving circuit of Shimada in the device of Daniels for saving power.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **DUC Q DINH** whose telephone number is **(703) 306-5412**. The examiner can normally be reached on Mon-Fri from 8:00.AM-4:00.PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **RICHARD A HJERPE** can be reached on **(703) 305-4709**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

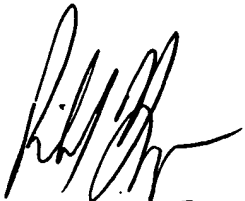
Or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivery response should be brought to: Crystal Park II, 2121 Crystal Drive,
Arlington, Va Sixth Floor (Receptionist)

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

DUC Q DINH
Examiner
Art Unit 2674
DQD
August 19, 2002



RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600